

IN THE CLAIMS

Please cancel claims 24, 28, 29 and 59-64. Please amend claims 16 and 25 as shown.

Please add new claim 65 as shown.

Claims 1-15 (previously canceled)

Claim 16 (currently amended): A paper handler, comprising:

an acceleration conveyor for feeding paper at a predetermined speed;

a sensor located directly above the acceleration conveyor to sense a parameter of the paper located upon the acceleration conveyor;

a product conveyor downstream of the acceleration conveyor, the product conveyor being oriented to carry paper in the same direction as the acceleration conveyor;

a transition between the acceleration conveyor and the product conveyor;

a blowing system operatively positioned to facilitate carrying the paper across the transition from the acceleration conveyor to the product conveyor at a speed substantially equal to the predetermined speed, wherein the blowing system creates a vacuum drawing air across the transition; and

an ejector downstream of the sensor and operably positioned to eject targeted paper crossing the transition.

Claim 17 (previously canceled)

Claim 18 (original): The paper handler of claim 16, wherein the blowing system comprises a blower and a plenum chamber operably connected to the blower to create a vacuum downstream of the transition.

Claim 19 (original): The paper handler of claim 18, comprising a housing for the product conveyor and through which the vacuum creates an air flow flowing at air speed, wherein the housing has an interior cross section such that the air speed is higher near the transition than further downstream of the transition.

Claim 20 (original): The paper handler of claim 16, wherein the product conveyor comprises:

- a transition end proximate the transition; and
- a transition plate above the transition end.

Claim 21 (original): The paper handler of claim 20, wherein the transition plate is curved to conform to the product conveyor transition end.

Claim 22 (original): The paper handler of claim 16, wherein the product conveyor comprises a transition end below the acceleration conveyor.

Claim 23 (original): The paper handler of claim 22, wherein the acceleration conveyor comprises a device end and the product conveyor transition end is downstream of the device end.

Claim 24 (canceled)

Claim 25 (currently amended): The paper handler of claim 16~~24~~, wherein the vacuum draws air through the transition.

Claim 26 (original): The paper handler of claim 16, wherein the acceleration conveyor operates at a speed of at least 1000 ft./min. and the predetermined speed is at least 1000 ft./min.

Claim 27 (previously amended): The paper handler of claim 16, wherein the acceleration conveyor comprises a pinning structure upstream of the sensor.

Claims 28-29 (canceled)

Claim 30 (original): The paper handler of claim 16, wherein:

the acceleration conveyor comprises a separation region at which the paper separates from the acceleration conveyor;

the product conveyor comprises a reception region downstream of the transition wherein the product conveyor receives a majority of the paper crossing the transition; and

the transition comprises a transition plane intersecting the separation region and the reception region, wherein the transition plane is at a transition angle measured relative to the acceleration conveyor, and wherein the transition angle is between 15° and 60°.

Claim 31 (original): The paper handler of claim 30, wherein the transition angle is approximately 30°.

Claim 32 (original): The paper handler of claim 16, wherein the acceleration conveyor is horizontal.

Claims 33-58 (previously canceled)

Claims 59-64 (canceled)

Claim 65 (new): A paper handler, comprising:

- an acceleration conveyor for feeding paper at a predetermined speed;

- a sensor located directly above the acceleration conveyor to sense a parameter of the paper located upon the acceleration conveyor;

- a product conveyor downstream of the acceleration conveyor, the product conveyor being oriented to carry paper in the same direction as the acceleration conveyor;

- a transition between the acceleration conveyor and the product conveyor;

- a blowing system operatively positioned to facilitate carrying the paper across the transition from the acceleration conveyor to the product conveyor at a speed substantially equal to the predetermined speed;

- an ejector downstream of the sensor and operably positioned to eject targeted paper crossing the transition; and

- wherein the acceleration conveyor includes a belt and a pinning structure upstream of the sensor, the pinning structure including a rotary feeder contacting the belt.

COMMENTS

The Examiner had indicated that claim 24 included allowable subject matter. Independent claim 16 has now been amended to include all the features of claim 24 and is thus believed to be in allowable form.

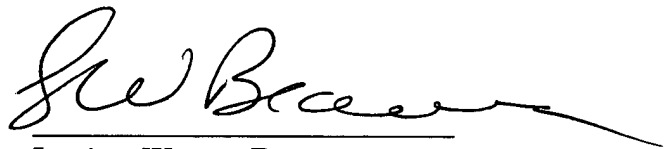
Claims 18-23 and 25-27 and 30-32 now depend from amended claim 16 and are also believed to be allowable.

Furthermore, the Examiner had indicated that the subject matter of claim 28 would be allowable if rewritten in independent form. Newly submitted claim 65 includes all of the subject matter of previous claim 28 rewritten in independent form.

Conclusion

Accordingly, it is believed that the application is now in condition for allowance of claims 16, 18-23, 25-27, 30-32 and 65.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Lucian Beavers', with a long horizontal flourish extending to the right.

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